

ENVIRONMENTALLY FRIENDLY MOUSE-PROOF AND TERMITE-PROOF ELECTRIC CABLE WITH VOLTAGE EQUAL TO OR BELOW 35KV

FIELD OF THE INVENTION

[0001] The invention relates to an eco-friendly rodent and termite resistant cable rated at a voltage of 35 KV or below.

BACKGROUND OF THE INVENTION

[0002] Currently, a common cable rated at the voltage of 35 KV or below includes: a cable core (including a conductive wire core and a neutral wire core), and an inner protecting layer. This kind of cable is convenient for use and widely applied; however, it has a poor performance for preventing itself being damaged by rodents and termites. With the development of the city construction, cable lines tend to be transferred from overhead to underground, which leads to an increasing probability of accidents including short circuit, blackout, control malfunction, disconnections of communication and signals due to damages by rodents and termites, and further endangers social and personal properties. In order to prevent rats and termites, a rodent and termite resistant jacket containing toxic chemicals is disposed to surround the cable. However, when the jacket is damaged during the transportation and underground laying construction, rats and termites will gnaw and decay the cable from the damage area, thus, the rodent and termite resistant jacket has no substantial effect. Besides, this kind of cable has a short period of validity for rodent and termite-resistance, and pollutes the environment, so that it has been forbidden.

SUMMARY OF THE INVENTION

[0003] It is one objective of the invention to provide an eco-friendly rodent and termite resistant cable rated at the voltage of 35 KV or below that is capable of improving the safety performance in the use of cables.

[0004] Technical scheme of the invention is as follows: an eco-friendly rodent and termite resistant cable rated at a voltage of 35 KV or below, comprises a cable core, and an inner protecting layer from an inner to an outer. A rodent and termite resistant layer made of a non-magnetic metal material is arranged to surround the inner protecting layer.

[0005] In the above technical scheme, the rodent and termite resistant layer made of the non-magnetic metal material is in a tape-winded structure, a filament-winded structure, or a braided structure. The rodent and termite resistant layer is made of a stainless steel or an anti-corrosion alloy. An eco-friendly rodent and termite resistant jacket is arranged to surround the rodent and termite resistant layer. The cable core is a single-phase core or a multi-phase core.

[0006] The cable of the invention is applicable for manufacturing power cables, control cables, signal cables, and communication cables.

[0007] The cable of the invention is provided with the rodent and termite resistant layer made of the non-magnetic metal material arranged to surround the inner protecting layer. The rodent and termite resistant layer is pollution-free, anti-corrosion, and prevents the cable from being damaged by rats or termites. The cable uses physical methods to improve the safety performance in use, and assures the security of the cables in areas suffered by rats and termites. In addition, the rodent and termite resistant jacket is not only prevents the cables from rats and termites but also eco-friendly.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is a cross sectional view of an eco-friendly rodent and termite resistant

cable rated at a voltage of 35 KV or below.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0009] As shown in FIG. 1, an eco-friendly rodent and termite resistant cable comprises: a cable core, an inner protecting layer 3, a rodent and termite resistant layer 2, and a rodent and termite resistant jacket 1 from the inner to the outer. The cable core comprises: a conductor 8, a conductor shielding layer 7, an insulating layer 6, an insulating shielding layer 5, and a copper shielding tape 4. The rodent and termite resistant layer 2 is made of a non-magnetic metal material and is arranged to surround the inner protecting layer 3. The rodent and termite resistant jacket 1 is eco-friendly and is arranged to surround the rodent and termite resistant layer 2.

[0010] The rodent and termite resistant layer 2 made of the non-magnetic metal material is in a tape-winded structure, a filament-winded structure, or a braided structure. The rodent and termite resistant layer 2 is made of a stainless steel or an anti-corrosion alloy. The cable core is a single-phase core or a multi-phase core. When the multi-phase core is adopted, the inner protecting layer 3 is provided with a filler 9.

CLAIMS

1. An eco-friendly rodent and termite resistant cable rated at a voltage of 35 KV or below, comprising a cable core and an inner protecting layer from an inner to an outer; **characterized in that** a rodent and termite resistant layer made of a non-magnetic metal material is arranged to surround the inner protecting layer.
2. The cable of claim 1, **characterized in that** the rodent and termite resistant layer made of the non-magnetic metal material is in a tape-winded structure, a filament-winded structure, or a braided structure.
3. The cable of claim 2, **characterized in that** the rodent and termite resistant layer is made of a stainless steel or an anti-corrosion alloy.
4. The cable of claim 3, **characterized in that** an eco-friendly rodent and termite resistant jacket is arranged to surround the rodent and termite resistant layer.
5. The cable of any of claims 1-4, **characterized in that** the cable core is a single-phase core or a multi-phase core.